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Bougainville Copper Limited

Annual Report 1982

Bougainville Copper Limited operates a large open pit mine and processing facility located at Panguna on the Island of Bougainville in the North Solomons Province of Papua New Guinea. It produces concentrate containing copper, gold and silver which is sold primarily under long term contracts to smelters in Japan, West Germany and Spain.

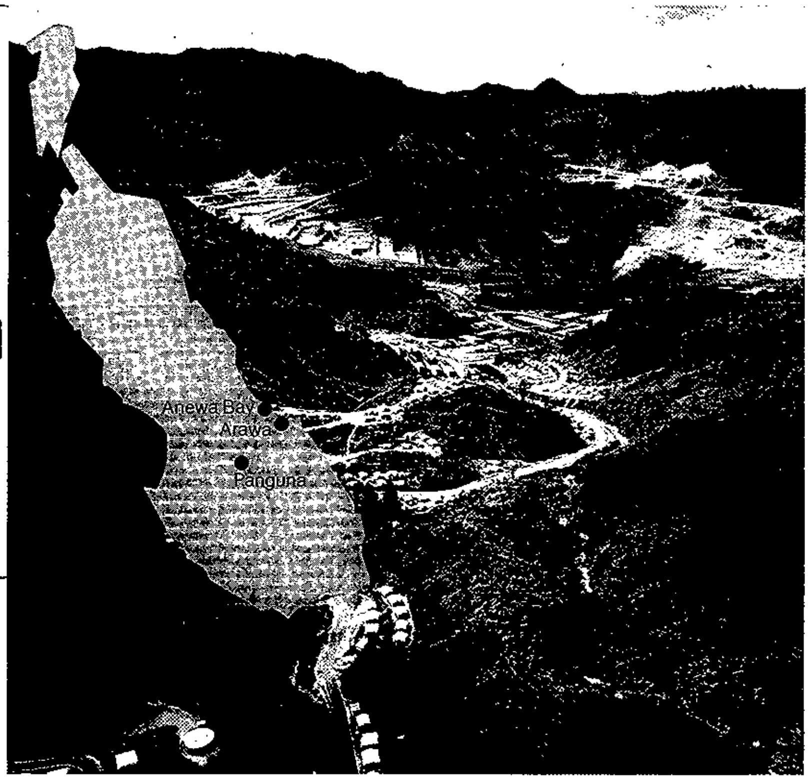
During 1982 the Company mined 76.2 million tonnes of material. Of this, 41.7 million tonnes of ore was treated to produce 599,000 tonnes of concentrate. This concentrate contained 170,000 tonnes of copper, 17.5 tonnes of gold and 43.2 tonnes of silver and had a gross sales value of K345 million (of which copper and gold contributed 51% and 47% respectively).

The mine commenced commercial production in 1972 and since start up has produced concentrate containing 1.9 million tonnes of copper, 205 tonnes of gold and 476 tonnes of silver. This production has a value of K2.7 billion which represents approximately 50% of the country's exports. During this period contributions to the government in the form of dividends, taxes, royalties, etc. totalled K560 million which represents 20% of internally generated Government revenue. Further, the Company's presence on Bougainville Island has promoted the development of significant local business enterprises to provide goods and services required for the mining operation and for the island's residents.

The Company makes a substantial contribution to the Country's economy. It employs a workforce of approximately 4000; of these 80% are Papua New Guinea citizens. Company training programmes have resulted in considerable progress in the localisation of the Company's employees and have made a significant contribution of skilled workers to the Papua New Guinea workforce.

The mine is located about 600 metres above sea level in rugged terrain. Equipment and processes used in the production of concentrate follow conventional lines, although the operation is unusual in the very large amount of material mined. This is necessary because of the low grade of the deposit. The end product, concentrate, is pumped 27 kilometres through a 15 centimetre diameter pipeline from the mine site to the Company's port at Anewa Bay.

Bougainville Copper Limited is owned 53.6% by CRA Limited. The Papua New Guinea Government and its nominee The Investment Corporation of Papua New Guinea own 20.2% while the remaining 26.2% of the share capital is held by public shareholders.



Bougainville Copper Limited

(Incorporated in Papua New Guinea)

Notice of Meeting

The Annual General Meeting of Bougainville Copper Limited will be held at 10.00 a.m. on Friday, 22nd April, 1983 in the Panguna Cinema, North Solomons Province, PNG.

A separate Notice of Meeting is enclosed. All shareholders are cordially invited to attend.

Bougainville Copper Limited
(Incorporated in Papua New Guinea)
Registered Office:
Panguna, Province of North Solomons, Papua New Guinea.
Principal Registered Office in Australia:
55 Collins Street, Melbourne. Telephone (03) 658 3333.
Share Registers:
Victoria: 84 Flinders Lane, Melbourne.
Telephone (03) 654 4899.
A.C.T.: Level 4, 24 Marcus Clarke Street, Canberra City.
P.N.G.: Panguna, Province of North Solomons.
United Kingdom: c/o Central Registration Limited.
1 Redcliff Street, Bristol.
Stock Exchanges:
Listed on the principal exchanges in all Australian states and New Zealand.
Auditors:
Coopers & Lybrand
Bankers:
Commonwealth Trading Bank of Australia
Bank of America NT & SA
Papua New Guinea Banking Corporation
Solicitors:
Gadens
Arthur Robinson & Co.

Directors

D. C. Vernon (Chairman)
N. R. Agonia
Sir Frank Espie, O.B.E.
R. H. Harding
P. W. Quodling
J. T. Ralph

Officers

P. W. Quodling
(Managing Director)
R. J. Cornelius
(Executive Manager — Concentrator)
B. J. Drew
(Executive Manager — Mine)
J. B. Holt
(Executive Manager — Personnel)
V. P. McCartin
(Executive Manager — Support Services)
R. N. Prideaux
(Executive Manager — Commercial)
J. M. Tynan
(Executive Manager — Technical Services)
J. C. Sharp
(Secretary)

Contents

The Year in Brief

		1982	1981
Production:			
Concentrate	(tonnes)	**598 634**	576 389
containing copper	(tonnes)	**170 004**	165 420
gold	(kilograms)	**17 528**	16 806
silver	(kilograms)	**43 153**	42 388
Net sales revenue	(K'000)	**281 217**	294 969
Net earnings after tax	(K'000)	**11 210**	22 788
Earnings per share	(toea)	**2.8**	5.7
Shareholders' funds	(K'000)	**588 422**	587 239
Return on shareholders' funds	(per cent)	**1.9**	3.9
Dividends declared:			
Gross dividends	(K'000)	**10 027**	20 053
per one kina share	(toea)	**2.5**	5
Depreciation	(K'000)	**44 211**	43 285
Government royalties	(K'000)	**3 522**	3 686
Taxation	(K'000)	**17 261**	20 560
Number of employees at 31 December		**3 930**	4 178

Chairman's Statement

D. C. Vernon, Chairman

The year 1982 was one of continuing development. It was also one in which the Company was further exposed to the results of a marked deterioration in the world's major economies and metal prices.

Despite these problems, the Company's 1982 net earnings were K11.2 million. Although this result is K11.6 million lower than 1981, the net earnings for the second half of the year were K25.8 million. The return on shareholders' funds was 1.9% compared with 3.9% last year. Levels of return of this magnitude are clearly inadequate and the Company needs to look to much higher returns in years of higher metal prices to achieve an adequate average return on funds invested.

Metal prices continued to be the most critical parameter in determining profitability. "Metal prices and profits" is the subject of the centre fold theme for this report. This topic is specifically addressed to assist shareholders to gain a better understanding of the impact of the world economies on metal prices. The article also illustrates the effects of metal prices, which are outside its control, on the Company's operations.

As foreshadowed in annual reports from time to time copper ore grades reduced with pit advancement although there was a slight increase in gold grade. An expansion of milling capacity in 1982 helped the Company to offset the effect of declining head grades and resulted in a 3% increase in contained copper production above the 1981 level. The eleventh ball mill was commissioned in April 1982 and the twelfth ball mill was commissioned in December 1982; the latter approximately six months ahead of its original schedule.

Unit costs of production, measured in kina per tonne of contained copper, have decreased compared with 1981. This is in part a direct result of the higher rate of production. More importantly it reflects the Company's drive to contain costs in the depressed economic climate.

The copper price remained depressed during the year and reached a low of US54c/lb in June. This represents the lowest price, adjusted for inflation, since the 1930's. The average copper price for 1982 was US67c/lb.

The reasons for the fall in the copper price relate to the uncertain state of the world economy and more particularly to that of the United States. Falling industrial output in the United States and weakness in other major economies have resulted in large reductions in demand for copper. With falling demand, copper prices weakened. Cutbacks in copper production have continued and approximately 700 000 tonnes have been withdrawn from the world's annual copper supply. However, production cuts did not occur quickly enough to maintain market balance.

There has been no reason for the Company to pursue a policy of varying production according to price movements. It has contractual sales commitments which account for 85% to 90% of normal production and the Company's reputation as a reliable supplier depends upon those being met. As concentrates produced are of a premium grade there is a ready demand for the remainder. The Company's situation as a low cost producer also depends upon its high proportion of fixed costs being absorbed by high levels of production.

The gold price, after falling to a low figure for the year of US$297/oz, recovered to average US$405/oz for the second half of the year.

The prices for gold and silver experienced during 1982 were lower than those in 1980 and 1981 and their decline had a significant impact on Bougainville Copper's earnings. Reduced inflationary expectations and high real interest rates have reduced the attractiveness of precious metals to investors. Precious metals also appear to have become less sensitive to international political and economic disturbances.

The very low metal prices received in the first half of the year, plus the uncertainty of the timing of an eventual recovery of the world's industrial economies, led to a review of the Company's loan facilities. As a result, the Revolving Credit Facility was extended from US$125 million to US$225 million in September. The Company also has standby facilities totalling US$90 million.

At the end of the year, total drawdowns under the Revolving Credit and standby facilities were US$125 million after reaching a peak of US$150 million during the year. The recovery of the gold price, plus the steady curtailment of costs throughout the year, enabled the Company to make loan repayments totalling US$25 million in November and December.

The outlook for 1983 must still be viewed with caution although there are some signs of recovery in the world economies particularly in the United States. Generally, this Company sees 1983 as another difficult year with no significant improvement in copper prices forecast until the second half of the year. The recovery is likely to be slower than was predicted previously.

The Directors have declared a first and final dividend of two and a half toea per share. As shareholders are aware, no interim dividend was paid during the year in view of the first half year loss of K14.5 million. The ordinary dividend of two and a half toea per share represents approximately 90% of the Company's net earnings in 1982.

The fortunes of the Papua New Guinea economy are very much linked to those of the international economy. This year has been a most difficult one for the country, with the prices of virtually all of its major exports falling to low levels. This placed the balance of payments under considerable pressure. It also led to a sharp reduction in Government revenue.
In these unfavourable circumstances the Government had to make some difficult decisions. The thrust of its latest Budget has been to cut back on expenditure, to maintain the level of borrowings at a manageable level and to improve the efficiency of Government services.

Last year it was indicated that the review of the Bougainville Copper Agreement which commenced in 1981 was expected to recommence in 1982 following settlement of issues between National and Provincial Governments. This has not yet eventuated.

Failure to reopen discussion impacts on the Company in two important areas.

The first area, which affects employee morale, relates to social services in the Province, namely health, education and law and order. These services have deteriorated significantly over recent years and action needs to be taken to reverse this trend.

The second area relates to further exploration on the Island. The main constraint to further exploration is the inability, to date, of the National and Provincial Governments to agree on the distribution of receipts from the current Bougainville Copper mine and from future exploration. It is pleasing to note however that the National and Provincial Governments are aware of the need to identify and quantify the potential of the Island's mineral resources. This information when available will provide a more positive base for long term planning in the Province.

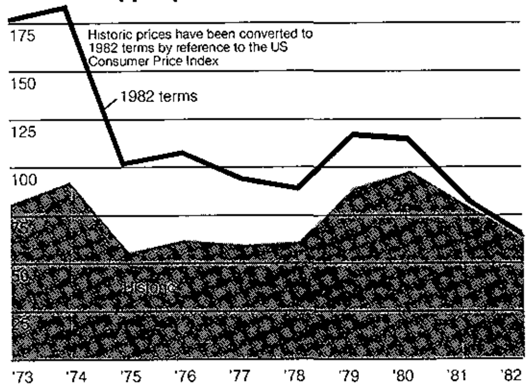
It is difficult to forecast when further discussions on this matter will be held.

During the year Ms J. L. Kekedo resigned as alternate Director to Mr. N. R. Agonia. Ms Kekedo was a Government nominee on the Board for six years and made a positive contribution towards the successful operation of the Company.

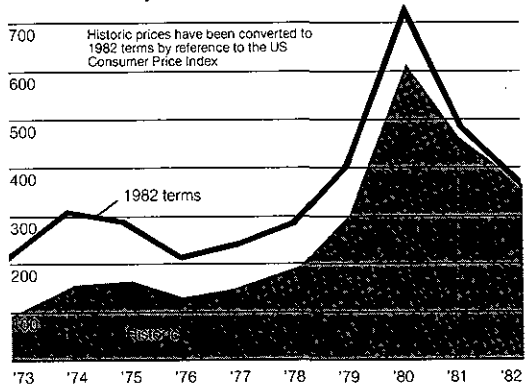
The progress made and the financial results of the Company during 1982 could not have been achieved without the enthusiasm and dedication displayed by Company employees. The Directors express sincere thanks to them for their untiring efforts over the past difficult twelve months.

D. C. Vernon, Chairman
16th February, 1983

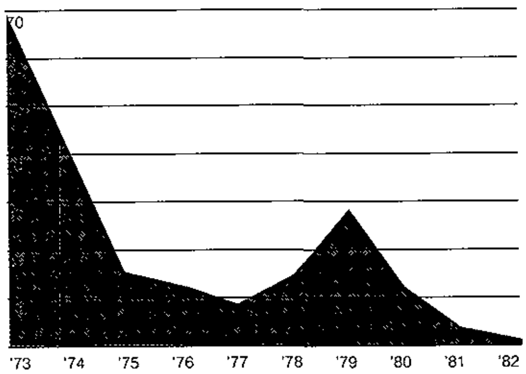
US c/lb. **Copper prices 1973-1982**



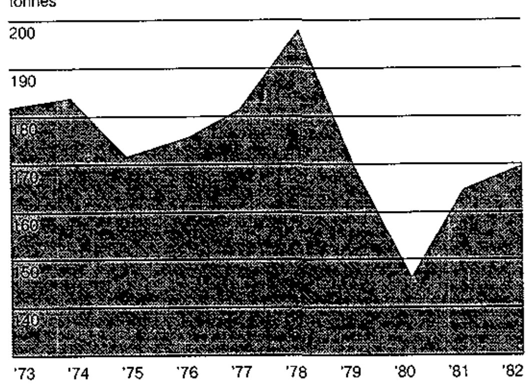
US $/oz. **Gold prices 1973-1982**



% **Return on shareholders' funds 1973-1982**



'000 tonnes **Production of contained copper 1973-1982**



Review of Operations

P. W. Quodling, Managing Director

Measured Ore Reserves:

The recoverable proved ore reserves at the end of 1982, based on current ultimate pit design, were estimated at 760 million tonnes averaging 0.40% copper and 0.46 grams of gold per tonne of ore.

Production:

Production statistics were as follows:

	Year Ended 31/12/82	Year Ended 31/12/81
Material mined (millions of tonnes)		
Ore	41.7	37.5
Waste	34.5	40.1
Waste/Ore ratio	0.83/1	1.07/1
Ore grade		
Copper (per cent)	0.47	0.51
Gold (grams/tonne)	0.60	0.59
Silver (grams/tonne)	1.48	1.55
Concentrate produced (dry tonnes)	598 634	576 389
Concentrate grade		
Copper (per cent)	28.4	28.7
Gold (grams/tonne)	29.3	29.2
Silver (grams/tonne)	72.1	73.5
Contained metal in concentrate		
Copper (tonnes)	170 004	165 420
Gold (kilograms)	17 528	16 806
Silver (kilograms)	43 153	42 388

Mine:

A total of 41.7 million tonnes of ore and 34.5 million tonnes of waste were mined during the year. As predicted the copper head grade declined from the 1981 level to average 0.47% for the year. Gold grades at 0.60g/tonne recorded a marginal improvement on 1981 levels but this is only a short term fluctuation. In general the trend for head grades is towards a decline over the next few years.

Ore production during 1982 continued to be concentrated on the northern and eastern sides of the pit. Production is expected to come mainly from the same locations in 1983. In addition, there should be a small contribution from the south side of the pit. It is expected that the bottom of the pit will be lowered by two benches (30 metres) in 1983.

Waste stripping in 1982 was done mainly in the upper areas of the pit on the northern side. The pit walls were taken back to current ultimate pit design. This will enable construction of a long term peripheral drainage channel to be commenced in 1983. Some waste was also removed from the southern side. Stripping of waste from the upper northern and southern edges of the pit will continue until 1984 when both areas should become significant sources of ore production.

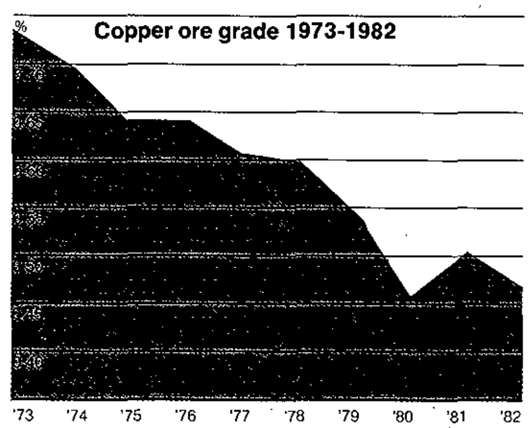
The previous high levels of availabilities and performances of major mining equipment were maintained.

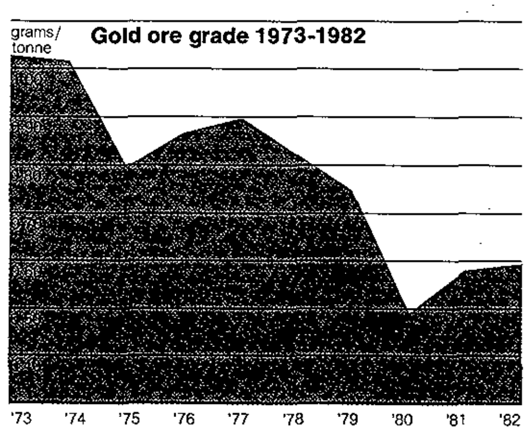
Driving of the pit gravity drainage tunnel was completed at 6 153 metres from the portal. Concreting of the invert (floor) and also full concrete lining of some weaker sections of ground is in hand. Work is continuing on vertical connections between the pit and the drainage tunnel, a vertical distance of 205 metres.

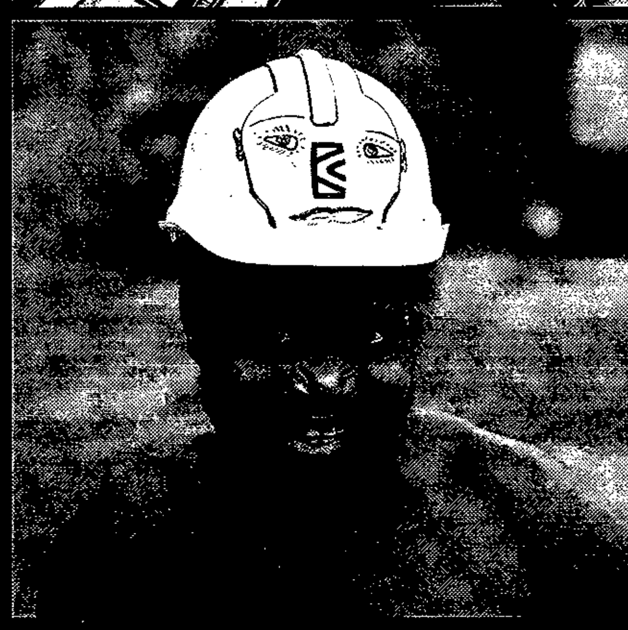
Concentrator:

The Concentrator expansion programmes, commenced in 1981 to compensate for the declining ore grades from the mine, continued through 1982. In this respect principal activities included the installation and commissioning of the eleventh ball mill in April 1982 and the twelfth ball mill in December 1982. Both mills were commissioned well in advance of the original schedules. Additional support facilities also completed in 1982 included the upgrading of conveyors and provision of additional crushers and screens in the fine crushing plant, the provision of three additional banks of large capacity (38 cubic metre) rougher flotation cells and the upgrading of water, air and power services.

The cleaner flotation upgrade works are well advanced and are expected to be completed during the first half of 1983.







The Concentrator processed 41.7 million tonnes of ore, compared with 37.5 million tonnes in 1981. As a result of the commissioning of the eleventh mill during the year, throughput tonnage was the highest on record. This increased tonnage compensated for the effect of the lower copper head grade. The commissioning of the twelfth ball mill should result in a further increase in ore treated in 1983. However, the increase in tonnage will be offset by a continued decline in head grades. Concentrate production for 1982 was 598 634 tonnes, containing 170 004 tonnes of copper, 17 528 kilograms of gold and 43 153 kilograms of silver. Despite the fall in ore grade, these figures were above the corresponding figures for 1981 because of the appreciably higher throughput achieved.

Infrastructure:

Commissioning of the eleventh and twelfth ball mills plus associated ancillary equipment has increased power demand to a peak of 120 megawatts. This has necessitated the installation of additional power generation facilities. In 1981 orders were placed for two industrial gas turbine power generation units. Installation is now virtually complete and the units have provided power during planned outages of the steam turbine equipment.

The installation of a large vertical milling machine in the Central Workshop has contributed to a successful programme of heavy equipment reconditioning with significant savings in the purchase of replacement equipment. Also the Panguna aggregate crusher was upgraded to provide a more reliable source of crushed rock for concrete and haul road surfacing. Provision of additional accommodation facilities, also commenced in 1981, has been completed.

A programme to upgrade radio, telephone and data communication commenced in 1982 and will continue during 1983. This includes a data link to Brisbane which has been used initially to support the site computer installation and will also be used for transmission of other data from off site.

Operating Costs:

A cost reduction and deferral programme initiated in 1981 was escalated early in 1982. As a result of this programme operating costs in 1982 showed an increase of only 0.2% over the level prevailing during the previous year. This small increase was achieved despite a 3.8% increase in concentrate production over the same period. The unit cost of sales in 1982 has shown an actual decrease of 5% over 1981.

One of the critical areas that will continue to determine the Company's future cost performance is the price of oil products. In 1982, oil products — fuel oil and distillate — represented over one quarter of the Company's total operating costs. The Company is actively engaged in investigating alternative sources of energy in an effort to contain further increases in this area.

Marketing:

Sales during 1982 totalled 599 637 dry tonnes of concentrate containing 170 687 tonnes of copper, 17 694 kilograms of gold and 43 290 kilograms of silver. Concentrate was delivered under long term contracts to buyers in Japan, West Germany and Spain. In addition a number of small shipments were made to buyers in Asian markets.

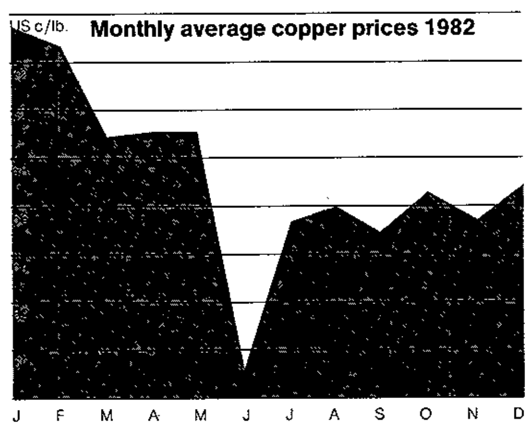
Demand for the Company's concentrate remains high. Not only is it a favoured product with smelters but also the copper concentrate market tightened towards the end of the year. The major cause was buyer concern to secure material for 1983 and 1984 in the face of new and incremental smelter expansions and mine production cutbacks and closures, particularly in North America.

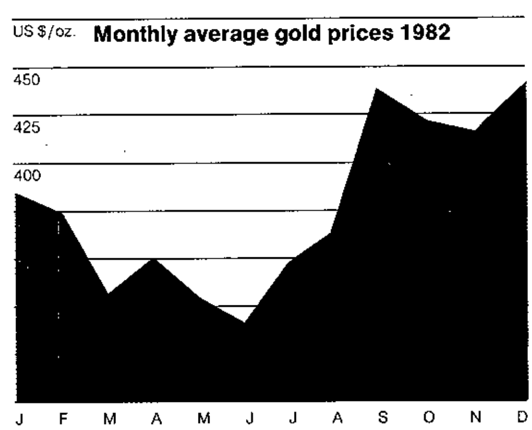
During 1982 the copper price remained under the influence of depressed world economic activity. The price declined from US76c/lb, the year's high in early January, to US54c/lb, the year's low in June. Prices recovered in the second half of the year to fluctuate around US60-70c/lb. The annual average price was US67c/lb, which represented the lowest price, in real terms, since the 1930's. In 1981 the annual average price was US79c/lb.

Apart from the general economic climate, gold and silver prices were influenced by high interest rates and declining inflation. This led to a reduction in investment demand for precious metals. Also prices failed to react to political and economic crises. After commencing the year at US$399/oz, gold fell to a year low of US$297/oz in June. The price recovered to reach US$489/oz in September, the year's high in London. The annual average price on the London Gold Market was US$376/oz compared with the 1981 average of US$460/oz.

The silver price behaved in a similar pattern to gold. The annual average was US$7.9/oz compared with US$10.5/oz in 1981.

The Company continued to roll over the forward contracts for the purchase of copper made in 1981. In 1982 the Company entered into forward contracts for the sale of gold. Quantities involved in such contracts are not significant when compared with the Company's annual production of these metals. The estimated net effect of these transactions as at 31 December has been reflected in earnings.





The most significant feature in the foreign exchange markets in 1982 was the persistent strength of the US dollar. The US dollar appreciated sharply against all currencies, particularly sterling. The strength of the US dollar against the kina helped to offset declining metal prices, although there were indications of the US dollar weakening at year end.

Finance:
The very low metal prices which prevailed in 1982, particularly in the first half of the year, resulted in the Company organising a US$100 million extension to its Revolving Credit Facility. The total facility now stands at US$225 million. Four new banks entered the syndicate which is lead managed by BA Asia Limited (wholly owned subsidiary of Bank of America NT & SA) and the Commonwealth Trading Bank of Australia.

In addition to the above facility the Company also has standby credits totalling US$90 million. The Company has the option of borrowing in the Eurodollar market or using US Bankers Acceptances under these arrangements.

The Revolving Credit Facility plus these standby facilities now give the Company a choice of flexible and competitive financing alternatives. They are well suited to the current uncertain and volatile economic environment.

At the end of the year, borrowings totalled K122 million compared to K101 million at the end of 1981. Loan drawdowns in the first half of the year, resulted in a peak level of borrowings of K148 million. Improved cash flow in the latter part of the year allowed the Company to make loan repayments during November and December.

In the international financial markets interest rates remained high throughout the first half of the year, began to ease in late July and have declined significantly since then. Total interest for the year was K16.1 million. The outlook for interest rates in 1983 is for lower incurred rates to apply, but significant variations could be experienced during the year.

In September the Commonwealth Trading Bank's Port Moresby Branch closed after a long history of involvement with both Papua New Guinea and the Company. The Papua New Guinea Banking Corporation now handles the Company's banking business in Papua New Guinea. The Company is pleased that its association with the Commonwealth Trading Bank of Australia will continue through the Company's offshore loan and banking facilities.

Personnel:
Reduction and deferment of some activities has resulted in a decline in employment numbers. By the end of 1982, total manpower had fallen from 4 178 to 3 930; eighty-one per cent, or 3 174, of whom were national employees.

The existing Bougainville Mining Workers' Union Award was extended for a period of two years to 30 June, 1984. During the year no time was lost through industrial stoppages.

Under conditions of the Employment of Non-Citizens Act, implemented in 1981, the Company is required to submit a further Training and Localisation Programme to the Department of Labour in 1983. In 1982, 455 employees received Technical Training and 346 Operator Training. In addition, Supervisory/Management Training programmes were attended by 340 employees. Seventy-six apprentices received their indentures during the year.

Environmental:
Research continued into the long term effects of tailings disposal on the environment. The main areas studied included the performance of the dredge in the Jaba River, river behaviour and physical changes in Empress Augusta Bay.

Final cuts around the pit were successfully revegetated as they became available. A mixture of grasses and legumes was used.

Scientific research continued on aquatic and revegetation aspects associated with tailings and mine waste disposal.

Exploration:
Diamond drilling below the 295 metre level in the pit was continued to further delineate the periphery and depth of the existing ore body. Low grade areas peripheral to the pit were, and will continue to be, investigated to assist long term mine planning.

The Government still has not lifted its moratorium on exploration in the Province which prevents the Company from carrying out exploration outside the present mining lease.

Capital Expenditure:
Capital Expenditure for the year totalled K57.2 million.

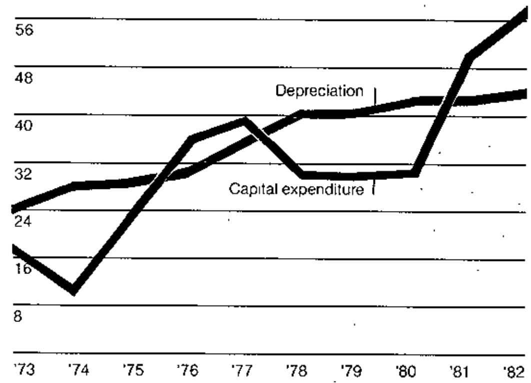
A further K2 million was expended on the pit drainage tunnel during the year; the total cost so far being K12.3 million. Two new ball mills were commissioned during 1982, which has increased capacity to twelve ball mills. The total cost of this expansion was K45.2 million.

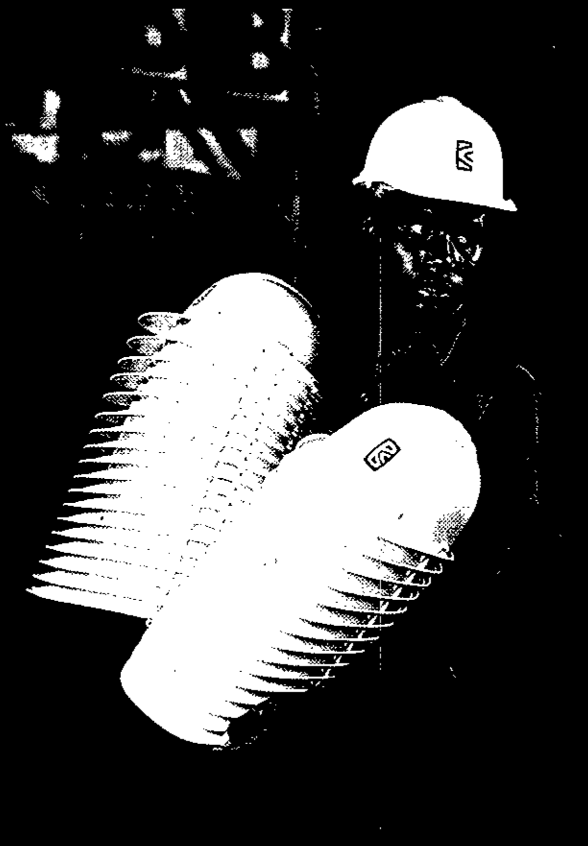
An amount of K4.9 million was expended on cleaner circuit modifications and maintenance area extensions during the year.

The installation of a gas turbine facility to supplement power generation cost K14 million.

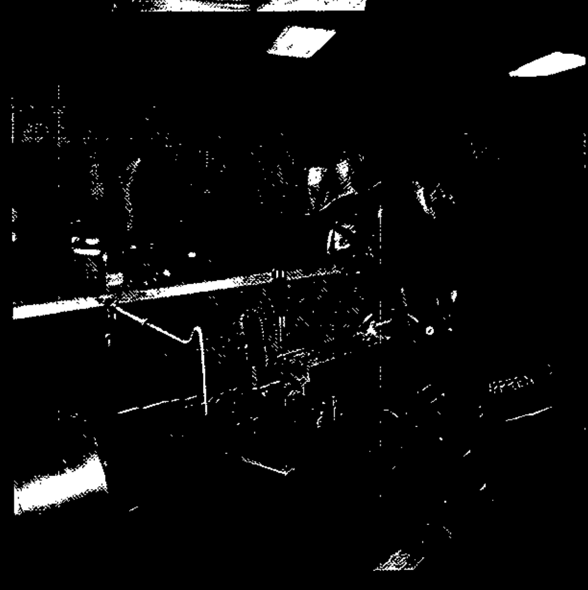
P. W. Quodling, Managing Director,
16th February, 1983.

Capital expenditure & depreciation 1973-1982





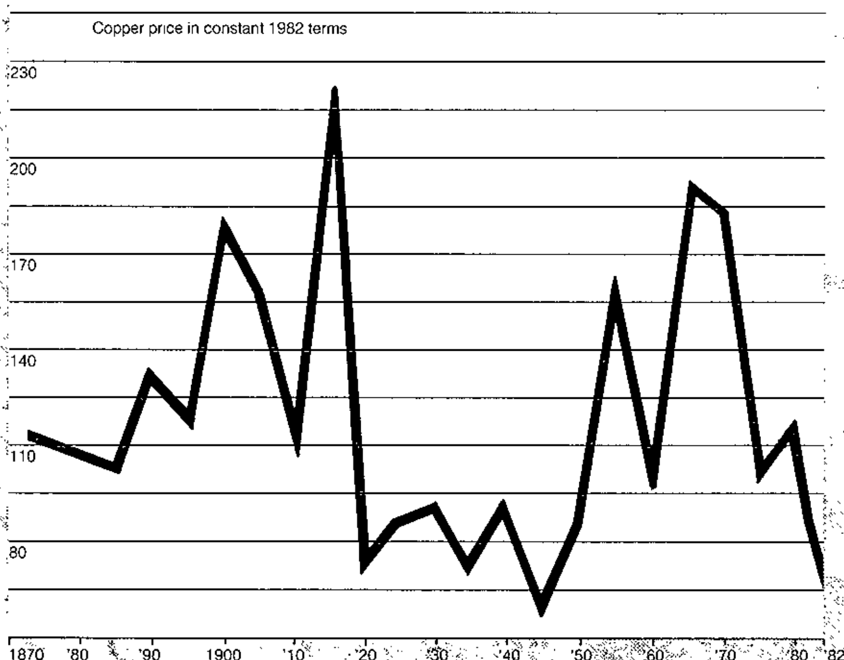
GAZELLE



Metal prices and profits

A notable feature of Bougainville Copper Limited's history is the way its profits have varied from year to year. This highlights the fact that mining is a high risk investment. Once the difficulties involved in exploration, mine planning, construction and operation of a mining venture have been overcome, investors are still faced with the prospects of uncertain and fluctuating returns.

US c/lb. **Copper price 1870-1982**



Why do Bougainville Copper's profits vary so much?

The main reason is fluctuations in revenue due principally to fluctuations in metal prices. The volume of sales, although affected by ore grades and changes in milling capacity, has not varied greatly. The Company is able to sell all of its production because of its long term contracts and the quality of its product.

Although the Company has long term contracts these do not set a price. The metals in the concentrate are priced daily on the major markets for these metals — the London Metal Exchange (LME) for copper, the London Gold Market and the London Silver Market. Sales revenue is determined by the prices set in these markets and is outside the control of the Company.

Why do prices fluctuate so much?

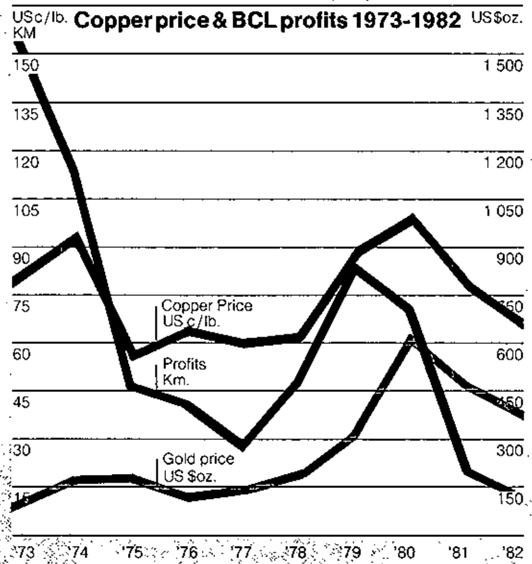
The prices set on the LME reflect changes in the supply and demand for metals throughout the world. Factors affecting demand are the level of economic activity, in particular the level of investment, and the amount of stocks held by

smelters, refiners and fabricators. All these influences combine to produce an ever changing pattern of demand.

Production does not always exactly meet these demands. When demand is strong it can take some time for existing mines to increase output or for new mines to be developed. When demand is weak, production is not always adjusted to the same extent or at the same rate. Random factors such as industrial disputes or political disturbances in producing countries can also lead to market imbalances.

Prices are also affected by speculative activity on the exchange.

All of these factors affect the LME metal prices and the result for Bougainville Copper is fluctuating sales revenue.

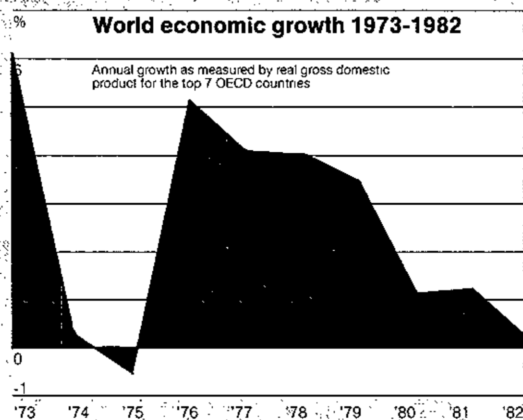


Copper price & BCL profits 1973-1982

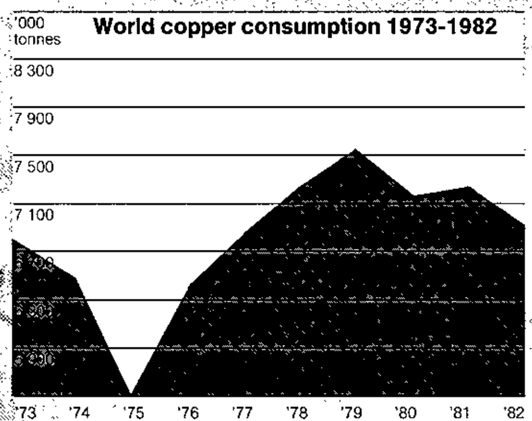
Why were prices so low in 1982?

In 1982 all the main industrial economies, U.S.A., Western Europe and Japan, were going through a severe and prolonged recession. These countries are the main consumers of copper, so there was a large fall in demand. The high interest rates which accompanied the recession also led to a cut back of stocks held by consumers. Production did not fall quickly enough to maintain a market balance, and prices tumbled to their lowest level in real terms for decades.

Falling rates of inflation and high interest rates also had a depressing effect on gold and silver prices. Precious metals lost their attractiveness in such an economic climate and their prices also slumped, although there was some sign of recovery towards the end of the year.



World economic growth 1973-1982



World copper consumption 1973-1982

What has been the impact on the Company?

As the Company's production and sales policies cannot be tailored to compensate for low metal prices, the current low prices have resulted in lower revenues and as a corollary lower profits.

This means —

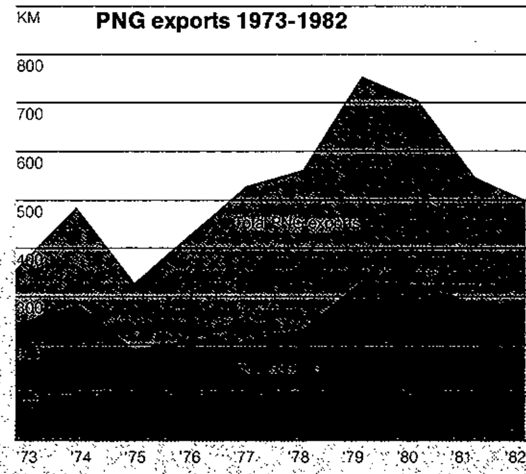
- Lower company tax payments to the P.N.G. Government.
- Increased borrowings to fund operating and capital expenditure.
- Lower development and investment expenditure by the Company.
- Lower dividends for shareholders.

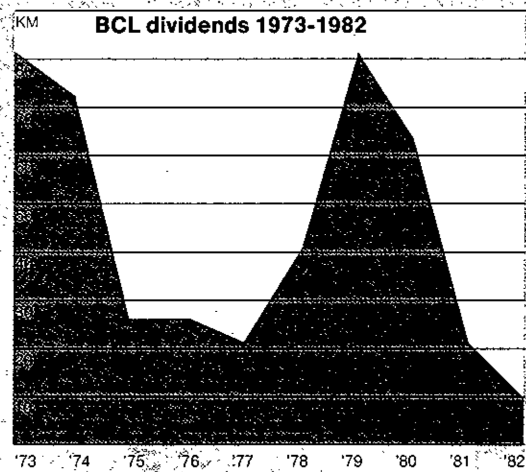
These effects are apparent in the Company's financial statements.

What has been the impact on Papua New Guinea?

In addition to receiving smaller amounts from taxation and royalties the Government as a major shareholder in the Company was affected by the decline in dividend payments.

In the North Solomons Province local businesses which rely heavily on the Company are suffering from the reduced levels of expenditure by the Company. On a wider scene the country's balance of payments which is heavily reliant on copper exports, was weakened by the lower prices prevailing during the year.





How has the Company responded?

The Company's operating strategies are geared to maintaining a mining operation which will be efficient and cost-competitive in the long-term. To ensure this, essential maintenance and capital expenditures have been sustained.

The reduced earnings have required a further extension to the syndicated loan negotiated in 1981. Even with this and other credit lines, the Company retains a strong Balance Sheet.

In 1981, the Company commenced a "Think Thin" campaign. Efforts to improve operating efficiencies and to eliminate waste were intensified. The success of these efforts is reflected in the modest increase in operating costs in 1982, despite the significant increase in ore removed and milled and the effects of inflation.

How are other copper mines coping with low prices?

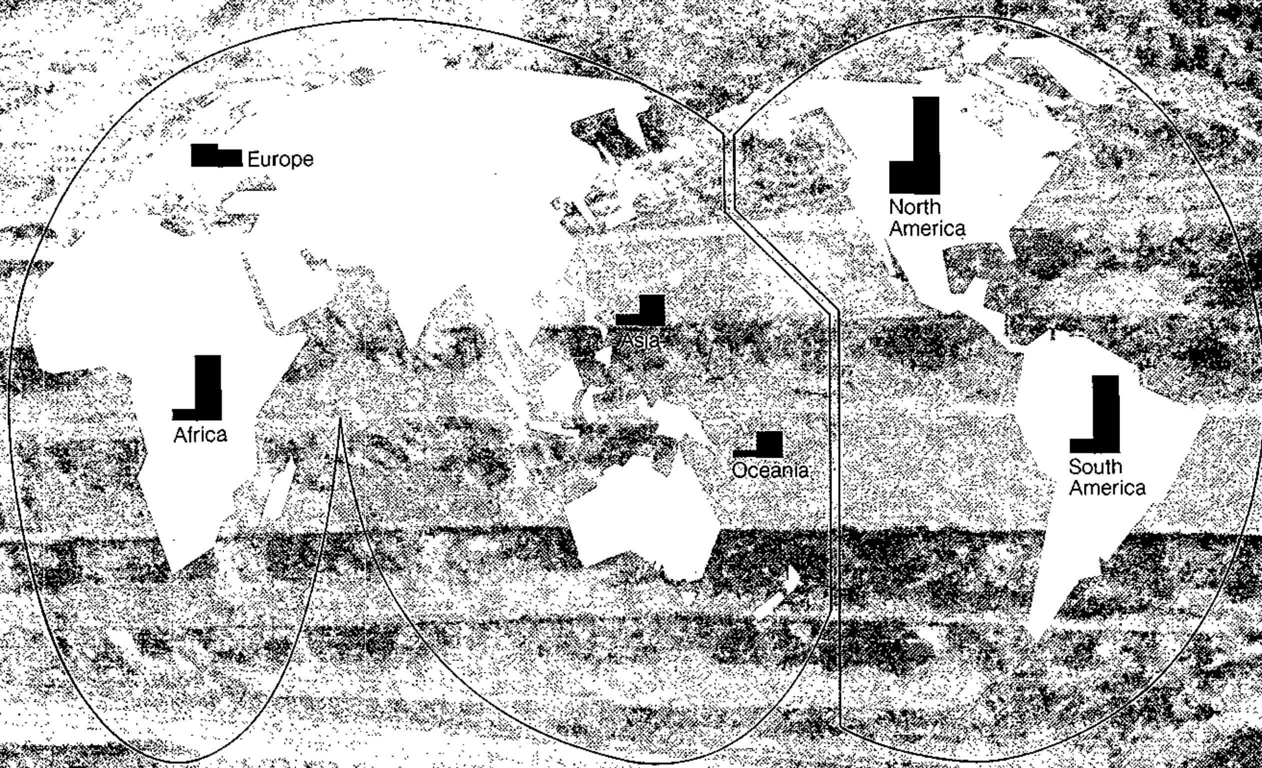
A high proportion of the world's copper is produced in developing countries, such as Chile, Peru, Zambia and Zaire. This production is not always sensitive to price, especially in the short term. Production is often maintained to ensure employment and to earn foreign exchange.

In North America many of the mines are relatively high cost. Low prices have left them no choice but to cut back or shut down production. As a result approximately 700 000 tonnes of copper production was lost in 1982.

In this economic climate, the development of large scale low grade deposits is being deferred. The emphasis has switched to higher grade multi-metallic deposits.

The outlook

The nature of the mining industry ensures that the Company will continue to experience periods of high and low profits and even losses. Periods of high profits are needed to build up the Company's financial resources so that it can survive the difficult periods such as the Company has experienced in 1982.



Western world copper stocks & production 1982 ('000 tonnes)

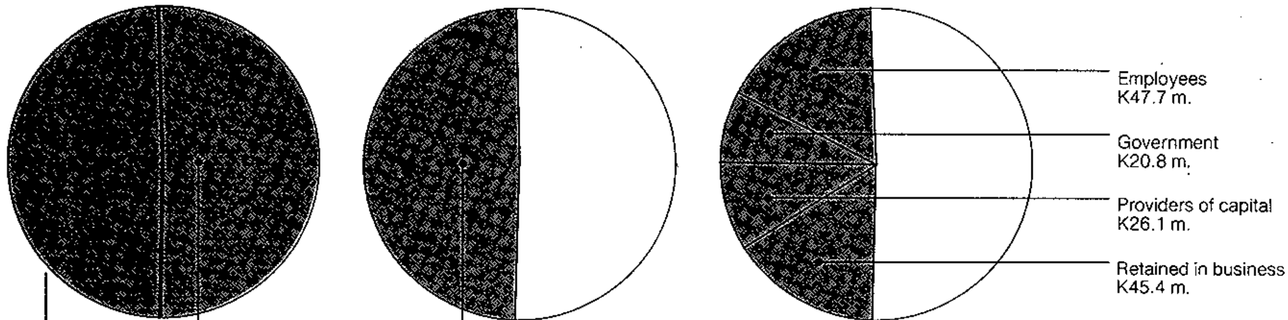
Statement of Value Added

A country's economy is largely made up of the activities of employers and employees and the contribution they make to that economy is known as the Value Added.

The conventional earnings statement does not reflect the contribution that Bougainville Copper makes to Papua New Guinea's economy. This contribution to the country's Gross National Product is represented by the sales generated during the year less the cost of goods and services brought in from outside the Company.

The following statement shows the contribution made by the Company and its employees during the last two years. The total Value Added was distributed to employees, government, shareholders and lenders of capital, with part being retained for future use within the Company.

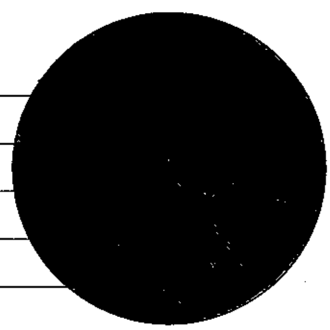
Value added	1982 K mill.	1981 K mill.
Sales made to external customers	281.2	295.0
Less: Materials and services brought in from outside the Company	143.1	150.9
	138.1	144.1
Add: Other income	1.9	2.5
Total Value Added available for distribution	140.0	146.6
Distribution		
Wages, salaries and benefits to EMPLOYEES	47.7	46.7
Taxation and royalties to GOVERNMENT	20.8	24.2
To PROVIDERS OF CAPITAL		
Dividends to shareholders	10.0	20.1
Interest to lenders	16.1	9.6
RETAINED in business to provide for asset replacement, expansion and protection of the Company and its employees in less favourable times.		
Depreciation	44.2	43.3
Retained earnings	1.2	2.7
Total Value Added distributed	140.0	146.6



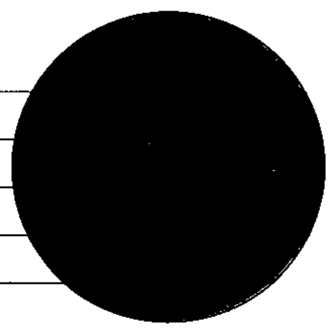
Sales & other income (K283.1 m.) | Less materials & services (K143.1 m.) | Equals total value added (K140.0 m.) | And this is how total value added was made up

Funds Statement

Source of Funds	1982 K mill.	1981 K mill.
Net earnings	11.2	22.8
Depreciation	44.2	43.3
Provision for income tax	17.3	20.6
Loan drawdowns	85.8	78.5
Other	6.2	4.3
	164.7	169.5



Application of Funds		
Loan repayments	75.9	8.7
Capital expenditure	57.2	50.1
Dividends paid	12.0	56.1
Income tax paid	19.5	51.7
Increase in working capital	0.1	2.9
	164.7	169.5



Directors' Report

The directors of Bougainville Copper Limited present their report on the audited financial statements of the Company and its subsidiaries for the year ended 31 December, 1982.

Directors:
The directors of Bougainville Copper Limited at the date of this report are:

D. C. Vernon (Chairman)	R. H. Harding
N. R. Agonia	P. W. Quodling
Sir Frank Espie, O.B.E.	J. T. Ralph

Sir Frank Espie, O.B.E., and R. H. Harding retire in accordance with the Company's Articles of Association and, being eligible, offer themselves for re-election.

Activities:
Bougainville Copper Limited has produced concentrate containing copper, gold and silver from a mine at Panguna, North Solomons Province, since 1972. The Company has two subsidiaries. Bougainville Copper Finance N.V. is incorporated in the Netherlands Antilles for fund raising purposes. During the year BCL (Hong Kong) Limited was incorporated primarily to arrange shipping contracts on behalf of the Company.

Net Earnings:
The net earnings of Bougainville Copper Limited and its subsidiaries for 1982 totalled K11 210 000 after providing K44 211 000 for depreciation and amortisation, K3 522 000 for royalties and K17 261 000 for income tax.

Taxation:
Taxation of K17 261 000 charged to earnings comprises K7 976 000 future tax and K9 285 000 current tax.

Subsidiaries:
During the year BCL (Hong Kong) Limited was formed. No subsidiaries were disposed of during the year. No dividends were paid by Bougainville Copper Finance N.V. or BCL (Hong Kong) Limited.

Share Capital:
There was no change in the Company's capital structure during the year.

Exchange Fluctuations:
Exchange losses of K1 903 000 were realised on the repayment of United States and Australian dollar loans. Unrealised exchange losses on overseas borrowings were K1 975 000. In addition, exchange gains of K579 000 arose on the translation of overseas bank balances. All these gains and losses were included in 1982 earnings.

Long Term Loans:
Drawdowns of K85 800 000 were made during the year against long term loan arrangements. Repayments of K75 900 000 were made against existing loans, leaving a balance outstanding at the end of the year of K121 772 000.

Revolving Credit Facility:
An agreement to extend this facility from US$125 million to US$225 million was signed in September 1982. Four new banks joined the syndicated loan which is jointly managed by the Commonwealth Trading Bank of Australia and BA Asia Limited.

Dividends:
A first and final dividend of two and a half toea per share has been declared and is payable on 5th May 1983. Withholding tax is deducted from dividends where required by the Chief Collector of Taxes.

Auditors:
The retiring Auditors, Coopers & Lybrand, being eligible, offer themselves for re-appointment.

Statutory Information:
In accordance with the provisions of Section 171 of the Companies Act (Chapter 146), the directors state that:

1. In their opinion, the results of the group's operations in the year under review have not been materially affected by items of an abnormal character except as mentioned in this report.
2. In their opinion, the current assets will realise at least the value at which they are shown in the accounts and that the value is an amount that these current assets might reasonably be expected to realise in the ordinary course of business.
3. No circumstances have arisen which render adherence to the method of valuation of assets or liabilities misleading or inappropriate.
4. No contingent liabilities have arisen since the balance date of the group accounts, 31 December, 1982, and the date of this report, 16 February, 1983.
5. No contingent liabilities have become enforceable or are likely to become enforceable within twelve months from the date of this report which will materially affect the group in its ability to meet its obligations as and when they fall due.

Additional Information:
The directors also state that:

1. They took reasonable steps before the statements of earnings and balance sheets were made out to ascertain what action had been taken so far as debts owing to the holding company were concerned, in relation to the writing off of bad debts and the making of provisions for doubtful debts and are satisfied that there were no bad debts and that a provision for doubtful debts of K65 600 was adequate.
2. They are not aware of any circumstances which would render the amounts written off for bad debts or the amounts of the provision for doubtful debts inadequate to any substantial extent.
3. Since the end of the financial year, no charge on the assets of any of the companies in the group has arisen which secures the liability of any other person.
4. They are not aware of any circumstances not otherwise dealt with in this report or group accounts, which would render any amount stated in the group accounts misleading.
5. No item, transaction or event of a material and unusual nature has arisen in the interval between the end of the financial year and the date of this report, which, in the opinion of the directors of Bougainville Copper Limited, is likely to substantially affect the results of the operations of the group in 1983.

Signed this 16th day of February, 1983 in accordance with a resolution of the directors of Bougainville Copper Limited.

D. C. Vernon (Chairman)

P. W. Quodling (Managing Director)

Statements of Earnings

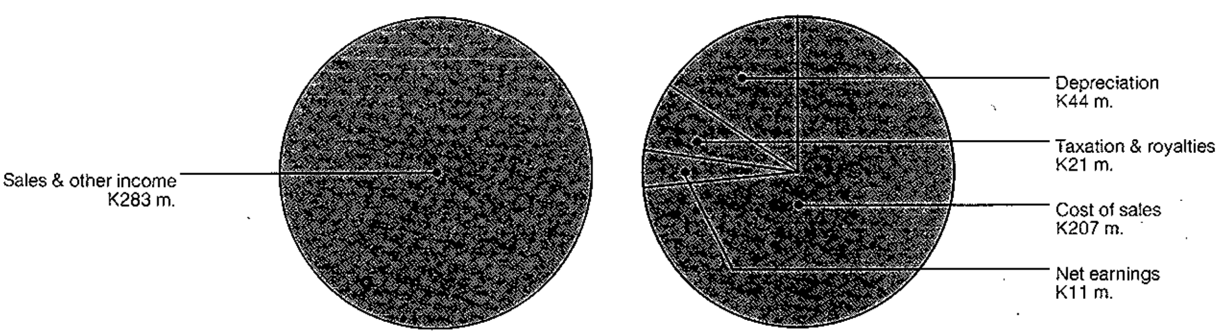
year ended 31 December, 1982

Bougainville Copper Limited	Notes	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000
Income					
Net sales revenue		281 217	294 969	281 217	294 969
Other income (net)		1 959	1 399	1 959	1 399
		283 176	296 368	283 176	296 368
Costs and expenses					
Costs of sales, general and administration expenses		187 532	197 521	187 530	197 521
Depreciation and amortisation	3	44 211	43 285	44 211	43 285
Royalties		3 522	3 686	3 522	3 686
Interest		16 141	9 597	16 141	9 597
		251 406	254 089	251 404	254 089
Net exchange losses/(gains)	6	3 299	(1 069)	3 299	(1 069)
Earnings before taxation	2	28 471	43 348	28 473	43 348
Income tax	4	17 261	20 560	17 261	20 560
Net earnings for year		11 210	22 788	11 212	22 788
Add:					
Retained earnings brought forward		154 900	152 165	154 903	152 168
		166 110	174 953	166 115	174 956
Less:					
Ordinary dividends					
Interim paid		—	8 021	—	8 021
Final payable		10 027	12 032	10 027	12 032
		10 027	20 053	10 027	20 053
Retained earnings carried forward		156 083	154 900	156 088	154 903

All amounts are expressed in Papua New Guinea kina.
Rounding to the nearest thousand kina has been adopted.

The notes commencing on page 18 form part of these accounts and are to be read in conjunction with them.

Simplified Earnings Statement



Balance Sheets

at 31 December, 1982

Bougainville Copper Limited

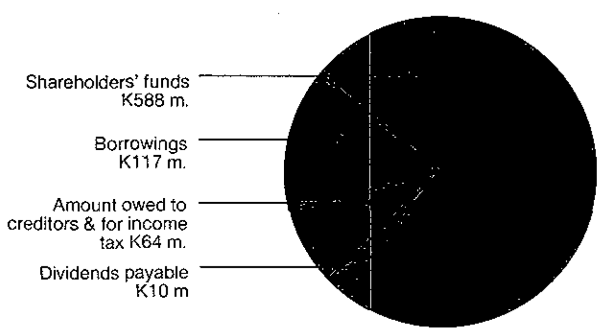
	Notes	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000
Funds employed by the group:					
Shareholders' funds					
Paid up capital	5	401 063	401 063	401 063	401 063
Asset revaluation reserve		31 276	31 276	31 276	31 276
Retained earnings		156 083	154 900	156 088	154 903
		588 422	587 239	588 427	587 242
Exchange fluctuation	6	(5 387)	1 478	(5 387)	1 478
Long term liabilities					
Future income tax	4	11 494	3 502	11 494	3 502
Loans	7	109 077	72 525	109 077	72 525
Provision for long service leave		5 019	4 050	5 019	4 050
		125 590	80 077	125 590	80 077
Current liabilities					
Loans	7	12 695	28 591	12 695	28 591
Creditors	8	37 566	30 473	37 559	30 471
Income tax		9 883	20 153	9 883	20 153
Dividends payable		10 027	12 032	10 027	12 032
		70 171	91 249	70 164	91 247
Total funds		778 796	760 043	778 794	760 044
These funds are represented by:					
Fixed assets					
Property, plant and equipment	9	622 819	611 234	622 819	611 234
Investments	10	145	145	154	154
Current assets					
Bank balances and short term deposits		8 320	10 836	8 309	10 828
Debtors for sale of concentrate		90 126	85 968	90 126	85 968
Other debtors	11	4 801	3 242	4 801	3 242
Stocks and stores	12	52 585	48 618	52 585	48 618
		155 832	148 664	155 821	148 656
Total assets		778 796	760 043	778 794	760 044

All amounts are expressed in Papua New Guinea kina.
Rounding to the nearest thousand kina has been adopted.

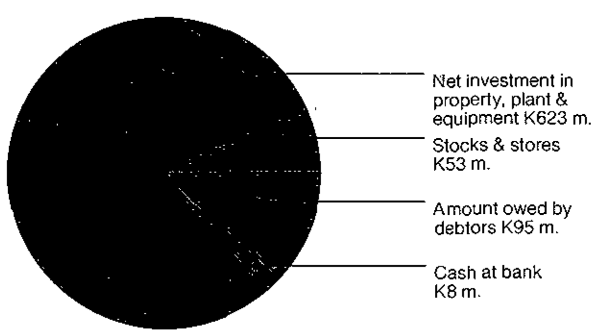
The notes commencing on page 18 form part of these accounts and are to be read in conjunction with them.

Simplified Balance Sheet

Funds employed: K779 m.



Assets: K779 m.



Notes to the 1982 accounts

These notes form part of the accounts and consolidated accounts of Bougainville Copper Limited and should be read in conjunction with them.

1. Statement of significant accounting policies

The principal accounting policies adopted in the preparation of the group accounts are stated to assist in a general understanding of the financial statements.
The policies generally comply with Papua New Guinea and Australian accounting standards and conform in all material respects with International accounting standards. They are consistent with those adopted in the previous year unless otherwise stated.

Cost Convention
The results of operations and financial position of the Company are accounted for under the historical cost convention, except that they reflect the revaluation of certain major items of property, plant and equipment in 1980.

Depreciation and Amortisation
Depreciation and amortisation are provided as applicable on cost or valuation and charged against income by the straightline method based on the shortest of the estimated economic useful life of the asset, the remaining life of the mine or twenty years. Depreciation commences in the month following commissioning ready for use.

Exploration and Development Expenditure
Expenditure on exploration within the mining lease and development is written off or provided against as incurred. Exploration has not been undertaken outside the mining lease.

Maintenance and Repairs
Expenditure on maintenance and repairs is charged against income as incurred.

Valuation of Stocks and Stores
Concentrate stocks are valued at direct production cost, which is lower than net realisable value. Cost includes direct materials, services and overheads, but excludes depreciation and indirect overheads. Stores are valued at weighted average cost, excluding transportation costs, less an allowance for inventory writedown.

Net Sales Revenue
Sales are recognised when the risk passes to the buyer which is usually at the time when the concentrate enters the ship's hold. The final sales value can only be determined from weights, assays, prices, exchange rates and treatment charges applying after each shipment has arrived at its destination. Realistic estimates based on world metal prices ruling up to year end are used for those shipments not due for final valuation until the following year. In addition, the estimated results of forward contracts existing at year end in relation to concentrates shipped are reflected in sales revenue. Variations in revenue arising from final pricing and outturn adjustments are recognised in the following year.

Taxation
Provisions for current and future income tax are calculated on earnings for the period. Certain items of expenditure, consisting of depreciation, provision for future liabilities, major consumable inventory items and operating spares, are deductible for income tax in different periods from which they are charged against earnings. The amount of the taxation difference due to timing is classified as future income tax.

Foreign Currency
Monetary assets and liabilities in foreign currencies are converted to Papua New Guinea currency at the rates of exchange ruling at balance date. All other overseas transactions are converted at the rates of exchange applying when they occurred.
Unrealised exchange gains and losses on overseas borrowings are amortised over the period of the related borrowings.

Subsidiaries
The Company has two wholly owned subsidiaries. Bougainville Copper Finance N.V. is incorporated in the Netherlands Antilles for fund raising purposes. BCL (Hong Kong) Limited was incorporated during the year principally to arrange shipping contracts on behalf of the Company. These companies have been consolidated in accordance with conventional consolidation principles.

	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000

2. Earnings before taxation

Earnings before taxation have been determined after allowing for the following income and expense items:

	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000
Income:				
Interest on short term deposits	1 517	2 024	1 517	2 024
Dividends — received from non-related corporation	4	1	4	1
Profit on disposal of shares	—	30	—	30
Expenses:				
Interest — on long term loan from subsidiary	—	—	1 204	1 198
— on long term loans and standby facilities	16 078	9 597	14 874	8 399
— other	63	—	63	—
Provision for doubtful debts (Note 13)	16	3	16	3
Loss on disposal and retirement of fixed assets	1 325	5 061	1 325	5 061
Research and development expenditure	436	686	436	686
Directors' emoluments (Note 14)	8	8	8	8
Auditors' remuneration —				
auditing the accounts	86	92	85	92
other services	11	4	11	4
(The auditors have received no other benefits)				

3. Depreciation and amortisation

The amount charged against earnings comprises:

	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000
Depreciation on: buildings	16 414	15 456	16 414	15 456
plant, machinery and equipment	25 805	24 457	25 805	24 457
Amortisation of: mine property	1 771	3 106	1 771	3 106
borrowing expenses	221	266	221	266
Total	44 211	43 285	44 211	43 285

4. Taxation

(a) Taxation on earnings for the year comprises:

	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000
Current	9 883	20 181	9 883	20 181
Future	8 006	1 630	8 006	1 630
	17 889	21 811	17 889	21 811
Adjustments relating to previous year:				
Current	(598)	(3 123)	(598)	(3 123)
Future	(30)	1 872	(30)	1 872
	17 261	20 560	17 261	20 560

(b) The following reconciliation discloses the items which caused the charge for income tax in the statements of earnings to vary from the income tax prima facie payable on reported earnings:

	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000
Income tax prima facie payable	10 392	15 822	10 392	15 822
Permanent differences				
— double deduction allowable	(942)	(692)	(942)	(692)
— non allowable depreciation	6 655	6 928	6 655	6 928
— net losses/(gains) not subject to tax	1 333	(247)	1 333	(247)
— other	451	—	451	—
Adjustments relating to previous year	(628)	(1 251)	(628)	(1 251)
	17 261	20 560	17 261	20 560

(c)

Future tax

	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000
Balance 1 January	3 502	—	3 502	—
Transferred from current tax	16	—	16	—
Transferred from earnings: current year	8 006	1 630	8 006	1 630
prior year	(30)	1 872	(30)	1 872
Balance 31 December	11 494	3 502	11 494	3 502

	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000

5. Capital

The authorised capital of K425 000 000 consists of 425 000 000 ordinary shares of one kina each.
The issued capital of the Company is 401 062 500 ordinary shares of one kina each, fully paid.
No change in authorised or issued capital occurred during 1982.

6. Exchange fluctuation

(a) The movements in Exchange Fluctuation Accounts relating to overseas loan obligations were:

	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000
Balance of unrealised (losses)/gains 1 January	1 478	5 054	1 478	5 054
Decrease due to currency movements during the year	(10 743)	(3 259)	(10 743)	(3 259)
Net amount debited/(credited) to earnings	3 878	(317)	3 878	(317)
Balance of unrealised (losses)/gains 31 December	(5 387)	1 478	(5 387)	1 478

(b) The net exchange (losses)/gains reflected in earnings arise from:

	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000
Overseas borrowings	(3 878)	317	(3 878)	317
Overseas cash balances	579	752	579	752
	(3 299)	1 069	(3 299)	1 069

7. Long term loans

(a) Total long term loans are repayable as follows:

	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000
within one year	12 695	28 591	12 695	28 591
later than one year	109 077	72 525	109 077	72 525
Total outstanding obligations	121 772	101 116	121 772	101 116

All loans are secured by a charge over 291 759 653 shares in the Company owned by CRA Limited, the Independent State of Papua New Guinea and The Investment Corporation of Papua New Guinea. The charge could only become enforceable after default in respect of the Japanese equipment loan which has now been repaid in full. The charge is not directly enforceable by other lenders and action is being taken to secure its release.

(b) The following are the individual loans which make up the total outstanding loan obligations:

	Interest Rate 1982	Repayable	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000
Bank loans						
Papua New Guinea Banking Corporation (kina)	14.00%	1983-85	6 000	6 000	6 000	6 000
Revolving Credit Facility — Consortium of 19 banks (US dollars)	13.42%	1987-91	86 265	54 589	86 265	54 589
Standby Credit Facilities — Commonwealth Trading Bank of Australia (US dollars)	—	—	—	23 882	—	23 882
Bank of America (US dollars)	9.34%	1983	7 428	—	7 428	—
			99 693	84 471	99 693	84 471
Other loans						
Japanese equipment loan (US dollars)	—	—	—	1 395	—	1 395
Australian equipment loans (Aust. dollars)	—	—	—	202	—	202
E.F.I.C. crusher loan (Aust. dollars)	8.75%	1983-84	928	1 619	928	1 619
Bearer Notes due 1984 (US dollars)	8.75%	1983-84	12 588	13 429	—	—
Loan from Subsidiary (US dollars)	8.75%	1983-84	—	—	12 588	13 429
John Brown Engineering (US dollars)	7.75%	1983-89	8 563	—	8 563	—
			22 079	16 645	22 079	16 645
Total outstanding obligations			121 772	101 116	121 772	101 116

8. Creditors

	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000
Related corporations:				
Subsidiary companies	—	—	756	786
Other	2 472	182	2 472	182
Trade creditors	21 511	13 130	20 757	13 130
Other current liabilities:				
Secured	2 178	1 515	2 172	727
Unsecured	11 405	15 646	11 402	15 646
Total	37 566	30 473	37 559	30 471

	Consolidated 1982 K'000	Consolidated 1981 K'000	Bougainville Copper Limited 1982 K'000	Bougainville Copper Limited 1981 K'000

9. Property, plant and equipment

Bougainville Copper Limited and Consolidated

	Cost or valuation K'000	Accumulated depreciation/ amortisation K'000	1982 net K'000	1981 net K'000
Mine development & buildings				
—at directors' 1980 valuation	294 808	46 521	248 287	262 482
—at cost	42 503	3 492	39 011	29 410
Plant, machinery & equipment				
—at directors' 1980 valuation	270 748	59 993	210 755	234 052
—at cost	70 162	7 651	62 511	32 537
Mine property—at cost	62 121	32 041	30 080	31 850
Capitalised borrowing expenses—at cost	782	221	561	540
Capitalised works in progress—at cost	31 614	—	31 614	20 363
	772 738	149 919	622 819	611 234

10. Investments

	Consolidated 1982	Consolidated 1981	BCL 1982	BCL 1981
Unquoted shares at cost in:				
Subsidiary companies	—	—	9	9
Other companies	145	145	145	145
Total	145	145	154	154

11. Other debtors

	Consolidated 1982	Consolidated 1981	BCL 1982	BCL 1981
Related corporations	573	315	792	315
Other debtors and payments in advance	4 294	2 977	4 075	2 977
Provision for doubtful debts	(66)	(50)	(66)	(50)
Total	4 801	3 242	4 801	3 242

12. Stocks and stores

	Consolidated 1982	Consolidated 1981	BCL 1982	BCL 1981
Unshipped concentrate	5 027	5 596	5 027	5 596
Stores	47 558	43 022	47 558	43 022
Total	52 585	48 618	52 585	48 618

13. Bad and doubtful debts

	Consolidated 1982	Consolidated 1981	BCL 1982	BCL 1981
Amounts provided during the year for doubtful debts were in respect of:				
Other debtors	16	3	16	3

Bad debts were written off against the provision for doubtful debts.

14. Directors' emoluments

The total of the emoluments received, or due and receivable (whether from the Company or from related corporations) by:	1982 Company K'000	1982 Related Corporations K'000	1981 Company K'000	1981 Related Corporations K'000
(a) directors of the Company engaged in the full-time employment of the Company or its related corporations (including all bonuses and commissions received or receivable by them as employees but not including the amount received or receivable by them by way of fixed salary as employees), was	—	—	—	—
(b) other directors of the Company, was	8	30	8	23

No commissions for subscribing for, or agreeing to procure subscriptions for any shares in or debentures of the Company or any related corporation, were received or are due and receivable by any director.

15. Commitments for capital expenditure

The commitments for capital expenditure not reflected in the financial statements total approximately K4 070 000 (1981 K26 950 000).

16. Contingent liabilities

Bougainville Copper Limited has guaranteed the Bearer Notes issued by its subsidiary Bougainville Copper Finance N.V. K12 588 000 (1981 K13 429 000).

17. Ultimate holding company

The ultimate holding company is The Rio Tinto-Zinc Corporation PLC (incorporated in England).

Declarations

Statement by Directors

In the opinion of the Directors of Bougainville Copper Limited the accompanying statements of earnings are drawn up so as to give a true and fair view of the results of the business of the Company and its subsidiaries for the period covered by the statements and the accompanying balance sheets are drawn up so as to exhibit a true and fair view of the state of affairs of the Company and its subsidiaries at the end of that period.

Signed at Panguna this 16th day of February, 1983.
On behalf of the Board
D. C. VERNON, P. W. QUODLING
Directors

Declaration by Secretary

I, James Cuming Sharp, Secretary of Bougainville Copper Limited, do solemnly and sincerely declare that the accompanying balance sheets and statements of earnings of the Company and its subsidiaries are, to the best of my knowledge and belief, correct. And I make this solemn declaration by virtue of the Oaths, Affirmations and Statutory Declarations Act (Chapter 317), conscientiously believing the statements contained herein to be true in every particular.

Declared at Panguna this 16th day of February, 1983.
J. C. SHARP
Secretary
Before me:
M. S. LELA
Commissioner for Oaths

Report of the Auditors to the Members

We report on the accompanying balance sheets and statements of earnings of the Company and its subsidiaries set out on pages 16 to 21 which have been prepared under the cost convention described in note 1.

In our opinion these balance sheets and statements of earnings are properly drawn up in accordance with the provisions of the Companies Act (Chapter 146), and so as to give a true and fair view of the state of affairs of the Company and its subsidiaries as at 31st December, 1982, and the results for the year ended on that date.

In our opinion the accounting and other records, including registers, examined by us have been properly kept in accordance with the provisions of the Act.

COOPERS & LYBRAND
by B. J. Davies
Registered under the Accountants Registration and Practice Act (Chapter 89).
Arawa. 16th February, 1983

Shareholdings

Distribution of shares

As at 16th February, 1983:
The issued shares of the Company were 401 062 500 fully paid one kina shares, each carrying one voting right;
The number of shareholders was 36 131;
The distribution of holdings of the issued shares was:

1- 1 000 shares	27 235
1 001- 5 000 shares	7 355
5 001-10 000 shares	907
10 001 shares and over	634
Total shareholders	36 131

86.09% of the total issued shares were held by the 20 largest shareholders;
The substantial shareholders were:
CRA Limited and its wholly-owned subsidiary C.R.A. Base Metals Pty. Limited — 214 887 966 shares (53.6%).
The Rio Tinto-Zinc Corporation PLC has an interest in the same shares through its wholly-owned subsidiaries (R.T.Z. Australian Holdings Pty Limited and Tinto Holdings Pty. Limited), interests in CRA Limited and C.R.A. Base Metals Pty. Limited.
The Independent State of Papua New Guinea, and The Investment Corporation of Papua New Guinea — 81 159 321 shares (20.2%).

Ten largest shareholders

The ten largest shareholders at 16th February, 1983, and the number of shares held by each were:

Name & Registered Address:	Shares
CRA Limited, Melbourne. Vic.	210 788 514
The Independent State of Papua New Guinea	76 430 809
ANZ Nominees Limited, Melbourne. Vic.	17 626 104
National Nominees Limited, Melbourne. Vic.	11 508 386
The Investment Corporation of Papua New Guinea, Port Moresby, P.N.G.	4 728 512
Bank of New South Wales Nominees Pty. Ltd., Sydney. N.S.W.	4 713 529
C.R.A. Base Metals Pty. Limited, Melbourne. Vic.	4 099 452
Panguna Development Foundation Limited, Panguna, P.N.G.	3 600 000
The National Mutual Life Association of Australasia Limited, Melbourne. Vic.	2 622 919
Public Officers Superannuation Fund, Boroko, P.N.G.	1 700 136
	337 818 361

Directors' interests

Directors' interests in the share capital of the Company and its related companies as at the 21st January, 1983 were:

D. C. Vernon	No interests
N. R. Agonia	No interests
Sir Frank Espie OBE	750 BCL shares 533 CRA shares
R. H. Harding	6 709 CRA shares 504 BCL shares 1 000 MKU shares 862 COM shares
P. W. Quodling	No interests
J. T. Ralph	171 BCL shares 587 CRA shares

Abbreviations:
BCL — Bougainville Copper Limited
CRA — CRA Limited
MKU — Mary Kathleen Uranium Limited
COM — Comalco Limited

Note:
Mr. R. H. Harding also became entitled to 287 Comalco shares under a renounceable rights issue which opened on 21st January, 1983.

Current Cost Accounting

The information presented in Historical Cost Accounts (HCA) can be misleading since full recognition is not given to the impact of price changes on the funds needed to maintain the assets employed by the Company. The need to remedy the defects in the traditional HCA accounts has focused attention on various proposals, one of which, Current Cost Accounting (CCA), is gaining international acceptance. The Company's earnings on an HCA basis are overstated in times of rising prices because of the failure to recognise the increased cost of replacing stocks and other assets required to maintain the business as a going concern. Therefore, under CCA principles, adjustments are made to measure the effect of specific price changes on the cost of services derived by the Company from use of its assets. However, because these assets have been financed partly by borrowing, a gearing adjustment is also necessary to arrive at the earnings, adjusted for specific price changes, which are attributable to shareholders.

CCA is still largely in the experimental phase and further testing is required before a definitive system is established. However, the subjectivity that enters into the preparation of the CCA accounts is compensated for by increased realism and relevance of information presented in these financial statements. Until such time as an Australian standard is issued, the Company will prepare CCA statements in accordance with the Statement of Standard Accounting Practice No. 16, Current Cost Accounting, issued by the Accounting Standards Committee of the United Kingdom in March 1980.

Current Cost Statement of Earnings

Bougainville Copper Limited and Subsidiary Companies

	1982 K'000	1981 K'000
Income	283 176	296 368
Costs and expenses excluding interest	235 265	244 492
Historical cost earnings before interest	47 911	51 876
Less:		
Current cost operating adjustments (refer below)	21 667	17 811
Current cost earnings from operations	26 244	34 065
Interest on net borrowing	16 141	9 597
	10 103	24 468
Net exchange (losses)/gains	(3 299)	1 069
Current cost earnings before taxation	6 804	25 537
Income tax	17 261	20 560
Current cost (losses)/earnings attributable to entity	(10 457)	4 977
Add: Gearing adjustment	6 462	5 476
Current cost earnings attributable to shareholders	(3 995)	10 453
Add:		
Current cost retained earnings brought forward	127 883	137 483
	123 888	147 936
Less:		
Dividends	10 027	20 053
Current cost retained earnings carried forward	113 861	127 883

Current cost operating adjustments:

	1982 K'000	1981 K'000
Cost of sales	3 986	4 339
Monetary working capital	3 205	4 686
Working capital	7 191	9 025
Depreciation	13 115	8 327
Disposals of property, plant and equipment	1 361	459
Property, plant and equipment	14 476	8 786
	21 667	17 811

Current Cost Balance Sheet

	1982 K'000	1981 K'000
Funds employed by the group:		
Shareholders' funds		
Paid up capital	401 063	401 063
Current cost reserve	324 211	217 423
Retained earnings	113 861	127 883
	839 135	746 369
Exchange fluctuation	(5 387)	1 478
Long term liabilities	125 590	80 077
Current liabilities	70 171	91 249
Total funds	1 029 509	919 173
These funds are represented by:		
Fixed assets	871 540	767 025
Investments	145	145
Stocks and stores	54 577	51 957
Other current assets	103 247	100 046
Total assets	1 029 509	919 173

Statistical Summary

Financial

	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973
Earnings (K million)										
Net sales revenue and other income	**283.2**	296.4	338.7	343.1	225.1	205.3	208.9	193.1	292.6	252.4
Operating and other expenses	**207.2**	210.8	174.8	144.1	125.0	126.8	117.5	107.2	92.5	81.8
Depreciation	**44.2**	43.3	43.8	40.7	40.4	36.2	31.1	29.6	28.5	24.8
Earnings before taxation and exchange gains	**31.8**	42.3	120.1	158.3	59.7	42.3	60.3	56.3	171.6	145.8
Exchange gains	**(3.3)**	1.1	2.6	3.5	10.3	(0.1)	1.3	2.3	9.5	12.9
Earnings before taxation	**28.5**	43.4	122.7	161.8	70.0	42.2	61.6	58.6	181.1	158.7
Taxation	**17.3**	20.6	51.2	77.9	22.0	13.7	20.3	12.4	66.5	0.3
Net earnings	**11.2**	22.8	71.5	83.9	48.0	28.5	41.3	46.2	114.6	158.4
Dividends	**10.0**	20.1	64.2	80.2	40.1	21.4	26.7	26.7	73.5	81.4
Earnings retained	**1.2**	2.7	7.3	3.7	7.9	7.1	14.6	19.5	41.1	77.0
Balance sheet (K million)										
Property, plant and equipment	**622.8**	611.2	610.8	325.4	340.1	352.2	350.4	346.0	352.2	371.7
Investments	**0.1**	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Current assets	**155.9**	148.7	148.4	201.0	125.8	137.1	136.0	129.5	205.6	130.4
Total assets	**778.8**	760.0	759.3	526.5	466.0	489.4	486.5	475.6	557.9	502.2
Shareholders' funds	**588.4**	587.2	584.5	294.5	317.5	309.7	302.5	287.9	268.4	227.4
Exchange fluctuation	**(5.4)**	1.5	5.1	5.4	9.0	14.6	9.0	11.5	19.1	39.5
Long term liabilities	**125.6**	80.1	25.7	36.2	42.1	53.3	101.7	106.8	121.1	127.5
Current liabilities	**70.2**	91.2	144.0	190.4	97.4	111.8	73.3	69.4	149.3	107.8
Funds employed	**778.8**	760.0	759.3	526.5	466.0	489.4	486.5	475.6	557.9	502.2

Production/Sales

	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973
Mined										
Ore and waste removed (millions of tonnes)	**76.22**	77.56	79.76	75.97	79.05	70.79	58.54	56.40	56.00	56.65
Ore milled (millions of tonnes)	**41.74**	37.53	37.62	36.17	38.12	34.11	31.21	31.08	30.14	29.14
Ore grade										
Copper (per cent)	**0.47**	0.51	0.46	0.55	0.60	0.61	0.64	0.64	0.70	0.73
Gold (grams/tonne)	**0.60**	0.59	0.50	0.75	0.82	0.90	0.87	0.80	1.02	1.03
Silver (grams/tonne)	**1.48**	1.55	1.47	1.70	1.80	1.86	1.96	1.87	2.12	1.99
Produced										
Concentrate (thousands of dry tonnes)	**598.6**	576.4	510.4	584.7	658.6	615.6	596.8	595.5	640.8	650.2
Contained copper (thousands of dry tonnes)	**170.0**	165.4	146.8	170.8	198.6	182.3	176.5	172.5	184.1	182.9
Concentrate grade										
Copper (per cent)	**28.4**	28.7	28.8	29.2	30.2	29.6	29.6	28.9	28.7	28.1
Gold (grams/tonne)	**29.3**	29.2	27.5	33.7	35.5	36.3	33.9	30.5	32.0	31.6
Silver (grams/tonne)	**72.1**	73.5	72.2	76.3	79.8	77.1	76.1	71.0	72.0	69.0
Sales										
Total concentrate (thousands of dry tonnes)	**599.6**	596.2	494.4	586.5	640.9	614.8	605.8	586.9	665.7	625.2
Shipped to:										
W. Germany	**217.1**	206.0	163.7	187.6	206.8	198.3	223.2	243.5	221.4	200.3
Japan	**279.7**	296.9	269.4	328.2	326.7	337.1	256.4	250.7	343.2	342.9
Spain	**53.3**	64.7	41.0	49.0	62.1	47.0	58.2	72.2	57.4	35.8
Other	**49.5**	28.6	20.3	21.7	45.3	32.4	68.0	20.6	43.8	46.2
Values										
Gross concentrate sales value (K million) (before treatment and refining charges freight, etc.)	**343.6**	355.2	386.3	407.0	294.5	266.3	260.3	219.4	307.4	270.8
Contribution by:										
Copper (per cent)	**51**	54	51	60	64	66	74	69	74	83
Gold (per cent)	**47**	44	46	37	34	32	24	29	25	16
Silver (per cent)	**2**	2	3	3	2	2	2	2	1	1

Other

	1982	1981	1980	1979	1978	1977	1976	1975	1974	1973
Average metal prices										
L.M.E. copper (USc/lb)	**67.1**	79.0	99.2	89.8	61.9	59.3	63.6	55.9	93.3	80.9
London gold market (US$/oz.)	**375.6**	459.9	614.7	304.7	193.5	147.8	124.8	160.9	158.7	97.3
London silver market (US$/oz.)	**7.9**	10.5	21.0	11.0	5.4	4.6	4.4	4.4	4.7	2.5
Return on shareholders' funds (%)	**1.9**	3.9	12.2	28.5	15.1	9.2	13.7	16.0	42.7	69.7
Earnings per share (toea)*	**2.8**	5.7	17.8	20.9	12.0	7.1	10.3	11.5	28.6	39.5
Dividends in toea per fully paid share* (par value, one kina)	**2.5**	5.0	16.0	20.0	10.0	5.3	6.7	6.7	18.3	20.0
Bonus dividend in toea per fully paid share*	**—**	—	24.0	6.7	—	—	—	—	—	—
Number of shares issued at end of year (millions)	**401**	401	401	267	267	267	267	267	267	267
Number of shareholders at end of year	**36 486**	38 027	38 326	38 750	40 935	43 820	50 082	54 129	55 558	45 353
Debt/equity ratio	**0.20/1**	0.17/1	0.05/1	0.15/1	0.19/1	0.37/1	0.40/1	0.44/1	0.52/1	0.72/1
Work force at end of year (P.N.G.)										
Overseas	**756**	801	877	851	855	853	858	942	980	929
National	**3 174**	3 377	3 416	3 314	3 243	3 063	2 989	3 094	3 242	2 915

Note: *1973 to 1979 figures are after adjustment for the 1980 capital reconstruction

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Printed by A. E. Keating (Printing) Pty. Ltd.

Bougainville Copper Limited

Annual Report 1982

How has the Company responded?

The Company's operating strategies are geared to maintaining a mining operation which will be efficient and cost-competitive in the long-term. To ensure this, essential maintenance and capital expenditures have been sustained.

The reduced earnings have required a further extension to the syndicated loan negotiated in 1981. Even with this and other credit lines, the Company retains a strong Balance Sheet.

In 1981, the Company commenced a "Think Thin" campaign. Efforts to improve operating efficiencies and to eliminate waste were intensified. The success of these efforts is reflected in the modest increase in operating costs in 1982, despite the significant increase in ore removed and milled and the effects of inflation.

How are other copper mines coping with low prices?

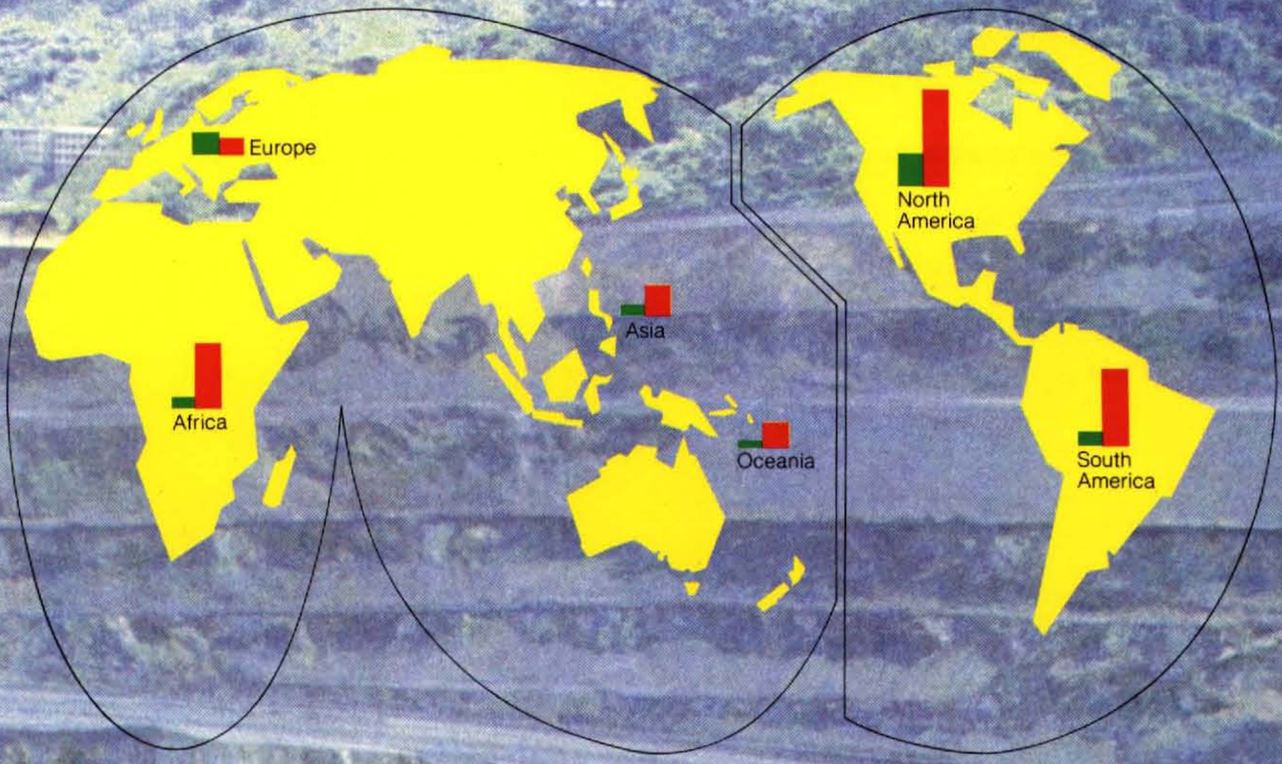
A high proportion of the world's copper is produced in developing countries, such as Chile, Peru, Zambia and Zaire. This production is not always sensitive to price, especially in the short term. Production is often maintained to ensure employment and to earn foreign exchange.

In North America many of the mines are relatively high cost. Low prices have left them no choice but to cut back or shut down production. As a result approximately 700 000 tonnes of copper production was lost in 1982.

In this economic climate, the development of large scale low grade deposits is being deferred. The emphasis has switched to higher grade multi-metallic deposits.

The outlook

The nature of the mining industry ensures that the Company will continue to experience periods of high and low profits and even losses. Periods of high profits are needed to build up the Company's financial resources so that it can survive the difficult periods such as the Company has experienced in 1982.



Western world copper stocks & production 1982 ('000 tonnes)

Refined metal stocks
Mine production